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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/753,448

01/04/2001

Susan I. Shelso

06530.0275

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08/09/2006

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
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WASHINGTON, DC 20001-4413

EXAMINER

PRONE, CHRISTOPHER D

ART UNIT

PAPER NUMBER

3738

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/753,448

Applicant(s)

SHELSON, SUSAN I.

Examiner

Christopher D. Prone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 July 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13, 15-21, 23-34, 36-41, 43 and 44 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-13, 15-21, 23-34, 36-41, 43 and 44 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Amendment*

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-13, 15, 16, 29, 30, 32-34 and 44 rejected under 35 U.S.C. 103(a) as being unpatentable over Ravenscroft (USPN 5,702,418) in view of Dwyer et al (USPN 5,903,234).

With reference to Figure 1, Ravenscroft discloses a delivery system (10) comprising a catheter (11) having self-expanding stent (20) disposed on distal end near a loading funnel (13). Figure 1 shows that loading funnel (13) is used to compress stent (20) on the distal end of catheter (11) within a slidable outer member (24) during delivery into the patient's body. The catheter (11) further comprises a guidewire (31) and a tubular member (17) comprising at least three radiopaque marker bands (37) shown in Figure 5 as 4 dark rings that indicate the leading, middle, and trailing ends of stent (20). Ravenscroft further discloses that the distal tip (13) may be made of

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radiopaque material or comprise a radiopaque marker band, which corresponds to the distal most tip of the stent (20). The catheter also has an outer member (24) that is slidable relative to the tubular member (5:15-22) is configured to retain the stent 20 in a radially compressed position. In one embodiment Ravenscroft discloses an inflatable balloon device (60) disposed on the catheter beneath the stent (7:10-13). The marker bands can be used to indicate a position corresponding to the re-constrain limit of a partially deployed stent (7:53-59). The catheter further comprises fluid ports (30) shown in figure 4, which are capable of conveying fluids to the inflatable device (60) between the tubular member (17) and outer member (24). Ravenscroft also discloses the method for implanting a self-expanding stent comprising the following steps; providing the stent/deployment system combination, delivering the system to the target region, partially deploying the stent, re-constraining the stent, and inflating the balloon device to assist the expansion of the stent (6:21-58 and 7:1-41). Ravenscroft discloses the delivery system for a self-expanding stent as claimed.

Ravenscroft however fails to disclose a holding sleeve configured to retain the positioning of the stent, wherein the inflatable device is disposed solely between the holding sleeve and the distal end of the catheter.

Dwyer teaches stent catheter delivery device comprising a holding/locking sleeve member (104), which engages the stent to prevent it from moving proximally when the sheath is retracted distally.

Therefore in view of the teachings it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the delivery system

as disclosed by Ravenscroft by including a holding sleeve member as taught by Dwyer in order to ensure proper positioning is maintained after the first end of the stent has been released.

Claims 5, 6, 17-21, 23-28, 31, 36-41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravenscroft as modified by Dwyer and further in view of Lenker et al (USPN 5,749,921).

The combination of Ravenscroft and Dwyer, as discussed above, discloses the stent delivery device as claimed. The combination however fails to teach the loading the stent onto the delivery system through the delivery funnel.

Lenker teaches a the device and method of loading a stent 72 into a delivery catheter prior to deployment by attaching removable cartridge 102 comprising flared portion 100 thereby allowing the stent to be loaded in the operating room prior to deployment to avoid shipping and storing the prosthesis in a compressed configuration (7:1-25). After the stent 72 is loaded within sheath 106 it is detached from the delivery system and disposed at the end of a delivery catheter.

Therefore in view of the teachings it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the delivery device of Ravenscroft modified by Dwyer in order to incorporate the method of loading the stent as taught by Lenker in order avoid storing the stent in a compressed configuration thereby promoting resilient expansion of the stent to its full diameter when it is released.

***Response to Arguments***

Applicant's arguments with respect to all the claims have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D. Prone whose telephone number is (571) 272-6085. The examiner can normally be reached on Monday Through Fri 8:30 to 5:00.

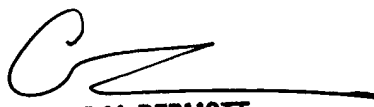
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
CDP

Christopher D Prone  
Examiner  
Art Unit 3738

  
**CORRINE McDERMOTT**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**